

REMARKS

In response to the Office Action mailed May 8, 2003, claims 9, 17 and 18 are cancelled. Claims 8 and 10 have been amended. Claims 20-23 have been added for the Examiner's consideration. Support for claims 20-23 can be found at least in Figures 8-13. Claims 1-8, 10-16, and 19 - 23 are now active in this application, of which claims 1 and 10 are independent. Based on the Amendments and the following Remarks, Applicants respectfully request that the Examiner reconsider the outstanding objections and rejections and they be withdrawn.

Claim Objection

In the Office Action, claims 3, 8, 10, 12, 13, 14, 17 and 18 have been objected to because of informalities. In response, claim 8 has been amended to recite, in part, "...the at least one indented portion...", and, claim 10 has been amended to remove the phrase "one of". Claims 17 and 18 are cancelled by this amendment. Applicant submits that all objections to claims 3, 8, 10, 12, 13, 14, 17, and 18 should now be withdrawn.

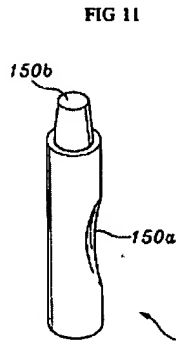
Rejections Under 35 U.S.C. §102

In the Office Action, claims 1, 2, 4, 6, 9, 15 and 19 have been rejected under 35 U.S.C. §102(a) for being anticipated by U. S. Patent No. 5,988,605 issued to Weisser, *et al.* ("Weisser"). This rejection is respectfully traversed.

The claimed invention is directed to a gas opening/closing pin which opens and closes a gas inlet and outlet formed in a pipe holder which seals one end portion of a cylinder and moves the position of a piston in the cylinder. The gas opening/closing pin includes a recess or indented portion formed on a side of the outer peripheral surface of the central portion of the gas opening/closing pin. The remaining portions of the outer peripheral surface, at the central portion, remain substantially cylindrical, as seen in the figure presented below. The recessed or indented portion opens and closes the gas inlet/outlet portion. An integrally formed stepped diameter reducing portion is formed at an upper end of the opening/closing pin.

As should be understood in context, this "indented portion" is only on a portion of the peripheral surface of the pin, itself; that is, the indented portion does not extend about the entire circumference of the opening/closing pin but rather to a portion thereof as clearly shown in Figures 8-13, elements 120a, 130a, 140a, 150a, 160a, and 170a. This indented portion is clearly

seen in Figure 11, for example, as reference numeral 150a (see, below). As discussed, this indented portion is not about an entire circumference of the pin, but only a portion thereof.



In contrast, Weisser et al. shows a reducing portion, but does not show the indented or recess portion on a side of the pin. In fact, much like that of the prior art, Weisser et al. shows an annular recess or ring. The annular recess 20 is formed entirely about the outer peripheral circumference of the pin, itself. This reference, nor does any other references show a depressed portion or recess on a side of the outer peripheral circumference of the pin. This is clearly a distinguishing feature. This annular recess is neither an indent nor a recess, in the same sense as recited in the claimed invention

For the above reasons, Applicants submit that the claimed invention is distinguishable over the Weisser et al. reference, and the §102(b) rejection should be withdrawn. Since Claims 4, 6, and 15 are dependent claims depending from patentable independent claims, Applicant submits that the dependent claims 4, 6, and 15 are also patentable and allowable subject matter. Accordingly, Applicants respectfully request that the rejection over claims 1, 2, 4, 6, 9, 15 be withdrawn.

Rejections Under 35 U.S.C. §103

In the Office Action, claims 3, 8, 10, 11-14, 17, and 18 have been rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. Weisser in view of U. S. Patent No. Re. 18,696 issued to Messier ("Messier"). This rejection is respectfully traversed.

Applicants first traverse the rejection of claim 10, which recites a gas opening/closing pin which has a

“...recessed portion which opens the gas inlet and outlet is formed on a side of the outer peripheral surface of the central portion of the gas opening/closing.”

The recessed portion of the invention does not extend about the entire circumference of the opening/closing pin but rather to a portion thereof as clearly shown in Figures 8-13, elements 120a, 130a, 140a, 150a, 160a, and 170a. The recessed portion is used to open and close the gas inlet and outlet portion.

Weisser et al., however, shows an annular recess or ring formed entirely about the peripheral circumference of the pin, itself. This neither reference nor does any other reference show a recessed portion which is formed on a side of the outer peripheral surface of the central portion of the gas opening/closing. Messier, on the other hand, is very similar to that of Weisser et al. As seen in Figure 4, for example, the pin includes an annular recess about an entire peripheral circumference of the pin. In fact, the only appreciable difference is that the annular recess, shown at about 18, has a smooth transition between the portion forming the annular recess, itself, and the outer peripheral surface of the pin. Also, contrary to the Examiner's contention at page 5 of the office action (re: claim 11), Messier does not have a plurality of streamlined recesses, nor are additional overlapping recesses shown, but rather, as one of ordinary skill in the art would appreciate, is simply a single annular recess (i.e., item 18). Applicants respectfully submit that the Examiner is reading into Messier more than what is disclosed.

Since Claims 3, 8, 11-14 are dependent claims depending from patentable independent claims, Applicant submits that the dependent claims 3, 8, 11-14 are also patentable and allowable subject matter. Accordingly, Applicants respectfully request that the 35 U.S.C. §103(a) rejection over claims 3, 8, 10, 11-14 be withdrawn.

Added Claims 20-23

Claim 20 has been added and depends from independent claim 1 and

recites the characteristics of the “at least one indented portion” has an entirely closed circumference defined by a non-indented portion of the outer peripheral surface. Claim 21 depends from claim 20 and further recites that the shape of the “at least one indented portion” as one of an oval and a circular shape. Claims 21 and 22, similarly, are directed to the shape of the “at least one streamlined recessed portion” of independent claim 10. Support can be at least found in Figures 8-13. None of the references of record show these features and hence these claims are distinguishable and should be in condition for allowance.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, claims 1-16, 19 and 20 are in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,



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